

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 25 NOV 2005

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See Form PCT/IPEA/416

Applicant's or agent's file reference
63093A

FOR FURTHER ACTION

International application No.
PCT/US2004/016981

International filing date (day/month/year)
28.05.2004

Priority date (day/month/year)
13.06.2003

International Patent Classification (IPC) or national classification and IPC
C08G18/36, C08G18/42, C08G18/66, D06N7/00

Applicant

DOW GLOBAL TECHNOLOGIES INC.

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
 - a. ☒ sent to the applicant and to the International Bureau) a total of 1 sheets, as follows:
 - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand

07.04.2005

Date of completion of this report

25.11.2005

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**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/US2004/016981

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-15, 17-19	as originally filed
16	received on 07.04.2005 with letter of 07.04.2005

Claims, Numbers

1-23	as originally filed
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- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify)*:
 - ☐ any table(s) related to sequence listing *(specify)*:
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify)*:
 - ☐ any table(s) related to sequence listing *(specify)*:

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/US2004/016981

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1-23
Inventive step (IS)	Yes: Claims	
	No: Claims	1-23
Industrial applicability (IA)	Yes: Claims	1-23
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

International application No.

PCT/US2004/016981

- 1 The following documents are referred to in this communication:
D1: US 2002/058774 A1 (KURTH ET AL) 16 May 2002 (2002-05-16)

2 Novelty

2.1 The present application does not meet the criteria of Article 33 (1) PCT, because the subject matter of claims 1 and 12 is not new in the sense of Article 33 82) PCT.

D1 discloses a carpet backing polyurethane reaction product of: a polyisocyanate, three conventional active hydrogen compounds and a transesterified blown soy oil apparantly containing 0% of unreacted vegetable oil in the polyol reaction product (example 133). As the carpet backing of example 133 of D1 fulfils the requirements for the composition of claim 1 of the invention it is assumed that the carpet backing of example 133 inherently also fulfils the requirement of the property tuftbind of claim 1.

2.2 Claims 2-11,13-23 are dependent on claims 1 and 12 and do not contain any features which, in combination with the features of the claims to which they refer, meet the requirements of the PCT for novelty.

Table I

Components	Ex. 2	Ex. 3	Ex. 4	Ex. 5
	Parts	Parts	Parts	Parts
V9287A	14	14	14	14
DPG	5.5	5.5	5.5	5.5
TPG	5.5	5.5	5.5	5.5
GC5N	0	25	50	75
P1200	75	50	25	0
Code 5027	1.5	1.5	1.5	1.5
D-70	200	200	200	200
I7560	55	57	59	61
Isocyanate Index	117	116	114	113
UL-6	0.05	0.1	0.3	0.3
T-12	0.05	0.1	0.3	0.3
Coat Wt. (kg/m ²)	1	0.99	0.92	1
Tuftbind (kg)	7.9	5.4	4.6	4.5
Tuftbind (kg) (normalized to 1 kg/m ² coating weight)	7.9	5.5	5.0	4.5

The tuftbind normalized to 1 kg/m² and soybean oil content is shown in Table I.
 5 More than 50 parts of soybean vegetable oil drops the tuft bind below 5 kg, ASTM D 1335.

Examples 6-17.

A unitary carpet backing sample was prepared as follows. The designated amounts of Voranol® 9287A polyol, dipropylene glycol (DPG), SoyOyl GC5N^M and Georgia
 10 Marble D70 were introduced into a 400-ml tripour plastic cup. The cup was secured and mixing was allowed to a temperature of 49 C. The composition was allowed to cool down to room temperature. The appropriate amount of Isonate® 7594 isocyanate was then added and the resulting composition was mixed at 1500 rpm while monitoring the temperature. When the mixture reached 80° F, the appropriate amount of catalysts were added, UL-6 and
 15 T-12. The composition was allowed to continue mixing for 30 seconds. After 30 seconds, mixing was terminated and a 4 inch diameter puddle was then poured out as a puddle onto a tentered target carpet style. A unitary coating was applied